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	Moslem Houses.	Christian Houses.	Tezid Houses.	Kizzi Bash Houses.
Diarbekr Sanjek	23,497	8,740	228	1,516
Saert Sanjek	21,532	6,512	917	1,000
Mardin Sanjek	21,101	6,413	489	..
Nomad Kurds' tents	8,260	..	..	..
Nomad Arabs' tents	13,500	..	..	..
Agricultural or sedentary Arabs' tents ..	8,600	..	..	..
Nomad Kurds with Arabs' houses and tents	1,600	..	..	..
	98,090	21,665	1634	2,516
At six souls each	588,540	129,990	9804	15,096

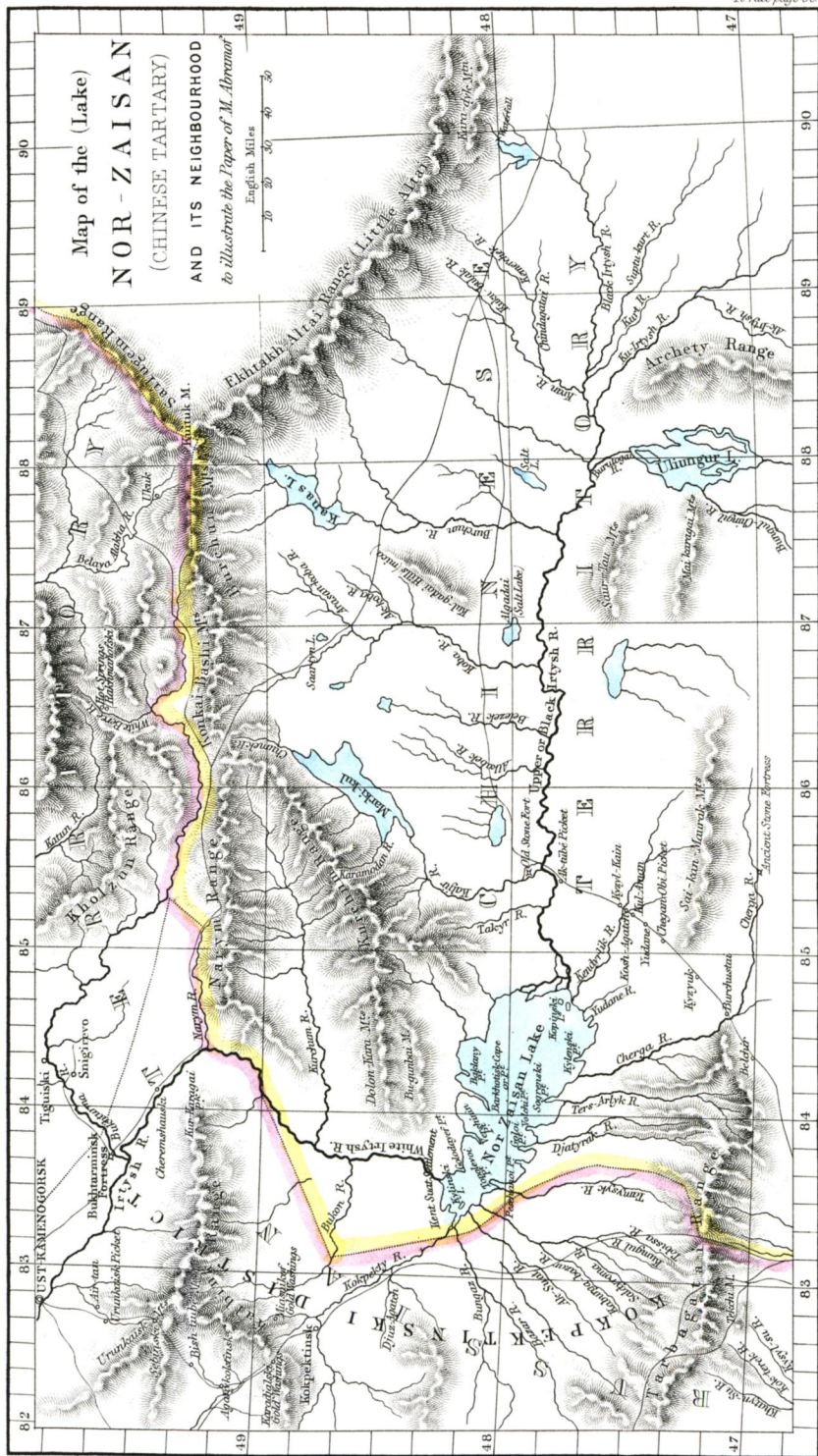
The general average of taxes paid by each house, not including Arabs who pay nothing, is, — for a Moslem house, 147 p. = 1*l.* 6*s.* 8½*d.*, and for a Christian house, 188 p. = 1*l.* 14*s.* 2*d.* annually. The gross revenue of Government is 179,532*l.*, against an expenditure of 43,493*l.*, leaving a net revenue of 136,039*l.* Yet, during the prosperity of the Abbasides, deducting revenues of districts not now included in the Diarbekr Pashalik, the same tracts yielded a net annual revenue, derived principally from tithe on the produce, of 11,750,000 silver dirhems, which at 8*d.* only would give 440,000*l.** And considerably later, in the time of the Zengides, the comparatively small and now worthless district of Sinjar, which, however, included Nisibin, alone gave a larger income than the present Pashalik.

IV.—*The Lake Nor-Zaisan and its Neighbourhood.* By A. ABRAMOF, Member of the Imperial Geographical Society of Russia. Translated from the Russian by JOHN MICHELL, Esq.

Read, January 9, 1865.

LAKE Nor-Zaisan is situated between 47° 40' and 48° 20' N. lat., and between 83° 10' and 84° 50' E. long. (Greenwich), in the province of Yobdi of the Chinese empire. Its south-western borders very closely touch the Siberian frontier, adjoining as they are to the Kokpektinski district of the Semipalatinsk region. This lake spreads itself out in a broad and elevated valley, surrounded by mountain ranges on three of its sides: on its north-eastern or Altaï side, on the north-western or Kolbinsk side, and on the southern or Tarbogatai side. The spurs of the Tarbogatai range, commencing from the mouth of the Upper Irtysh, down along the left bank of

* Ibn Khaldeon, cap. 16, sec. 3 of lib. i. of his 'Prolegomena.'



the Zaisan, are severally known under the following appellations : Makrak, or Magarak, Charbulak, Tramuinak, Hatun, Amu, Urentau, Sarkul-Laba, and Urchun-Baba. The height of this lake above the level of the sea is approximately 1800 feet.*

Nor-Zaisan Lake was formerly called by the Mongols Kun-Bloti-Nor, or the lake of bells, on account of its waves producing, when striking against some parts of the shore overgrown with reeds, a sound which resembled from a distance the tinkling of bells. Its present name of Nor-Zaisan has been given it by the Kalmyks since 1650, when, during a period of famine, they supported themselves with the fish caught in the lake, and in grateful remembrance called it Zaisan, which in the Kalmyk language signifies "noble" or "honourable."

The inhabitants of Siberia in the seventeenth century called this lake Kyzalpu.† The length of Nor-Zaisan, reckoning from its eastern extremity to the point where the White Irtysh flows out from its right shore into Russian territory, is $66\frac{1}{2}$ miles English; and from hence to its extreme end, the distance is estimated at about 20 miles. The whole length is thus about $86\frac{2}{3}$ miles; the width between the Golodayef and Volchi Capes is 10 miles; but farther on, it widens to 30 miles. The whole surface measures about $2508\frac{1}{2}$ square miles.‡ Soundings in the lake gave a depth in some parts of 40 feet. In former years it was of greater extent and depth; and that such was the case is confirmed by the existence of sand-hillocks at a considerable distance from the present shore, and by the low marshy land in the neighbourhood of the lake being overgrown with reeds to a considerable extent. The waters of the Zaisan are transparent, fresh, soft, and good for cooking purposes, but of a reddish colour in the deep pools and indentations. The lake becomes covered with ice between the 1st and 6th November, and again clear about the same time in May. Its level rises during the influx of the water of the Upper Irtysh from the middle of June to the end of July. The bottom of the lake is in some parts clay and in others mixed with small pebbles, and white, yellow, red, and blue varieties of silica.

The shores of this lake are depressed and overgrown to a considerable extent from the water's edge with reeds. The borders for a distance of 20 miles from Baklany Point, below Barkhotisk Point, are bare; small mollusc shells are found in the sands of the shore. Between Barkhotisk and Baklany Point, large quantities of stones of the size of a pigeon's egg are washed on shore from the

* According to accounts of Dr. Meyer, who visited the Altaï in 1826.

† Ritter, *Erdkunde von Asien*, II. Theil, I. Band, p. 635. Siberian chronicle in manuscript, preserved in the library of the Tobolsk Ecclesiastical Seminary, anno, 1655.

‡ 'Statistical Review of Siberia,' by Hagemeister, v. i. p. 33.

bottom of the lake, and they are overgrown with fine green moss. From the eastern end, on the right side, the headlands running out from the mountains are:—Baklany, Barhotisk, Vershinin, and Golodayef; beyond the latter, on the left side, are Capes Topolevoi, Peschanoi, Goloi, Volchi Sogrenski, Kylenski, and three others not named.

Two islands, the Kopinski, occur near the point where the Upper Irtysh discharges itself into the lake at its head, and another island, called Kylinski, lies off its lower end; here also there are many nameless islands overgrown with reeds.

The following rivers fall into the Nor-Zaisan:—*On its eastern shore*: the Upper or Black Irtysh and the Kendyrlik. *On its western shore*: the Cherga, Arasan, Ters-Arlyk, Djatyarak, Tamysyk, Tobissa, Kaburga, Aksuat, and others. The Black Irtysh issues out of the western slopes of the great Altaï range in two branches, one of which, running due west from the Karadyk Hills, empties itself by a waterfall into a small lake, and then flows out of it in a steady stream; the other branch flows from the south-east in a north-westerly direction, and uniting then under an angle with the other stream, receives the name of Irtysh. The upper sources of this river are supposed to occur in $90^{\circ} 20'$ E. long., and 47° lat.; therefore the whole length of its course may be estimated at $466\frac{2}{3}$ miles. Its bed is stony, and in some parts obstructed by rapids, which—and particularly those above the mouth of the Burchun, render the navigation both dangerous and difficult. The banks of the Irtysh, from its mouth for about $13\frac{1}{2}$ miles up its course, are depressed and overgrown with reeds; farther on they become sandy, and at some parts rocky. The waters steadily rise in it from the end of May to the middle of July. In September it becomes so shallow that boats carrying a burden of five tons in many places pass with great difficulty. The number of fords that occur along its course is pretty considerable. Generally speaking, it is even much shallower than the White or Lower Irtysh. According to Tartar traditions, the name of this river was given it by the Tartar Khan Irtyshak, who ruled over Siberia at the latter part of the 15th century, and who despatched men of experience from Iskar, his capital ($14\frac{2}{3}$ miles above Tobolsk), in search of the source of the Upper Irtysh. If the true etymology of the name of this river is Tartar, its derivation will be from “Ir,” earth, and “tysh,” earth-fissure or rent. It is probably so called on account of the chief of the two branches of the Irtysh falling in a cascade out of a mountain gap. The following are the affluents of the Black Irtysh:—On its right, the Kran, Burchun, Koba, Alkabek, Kaljir, and Tokyr; and on its left, the Suptukurt, Ku-Irtysh, Burutogoi, issuing out of Uliungur lake, and the Temir-su. The water of the Upper Irtysh, though of a coarse quality, is pure, and hence its dark appearance; the

river has received the name of the Black Irtysh in distinction from the Lower or White Irtysh, the waters of which are turbid in appearance. The White or Lower Irtysh flows out of Nor-Zaisan Lake at its north-western part, and lat. $48^{\circ} 13' 37''$, and long. $83^{\circ} 35' 36''$ E. It continues its course first in a northerly direction within Chinese territory. It receives the Narym nearly at $49^{\circ} 14' 55''$ lat., and bends sharply to the north-west until it reaches Bukhturminsk Fort. Over this distance, an extent of about $133\frac{1}{2}$ miles, the country on both sides of the Irtysh presents a level plain, which imperceptibly declines to the north-west. The bed of the river is from 70 to 400 fathoms broad, and, like the Upper Irtysh, sinuous; the banks, however, are generally depressed, rising only at a few parts from 1 to 2 fathoms.

Between Lake Zaisan and Fort Bukhturminsk the Irtysh receives the following tributaries:—*On its right bank*: the Karaburek, Kalgut, Kurchum, Kainda, Narym, and Bukhturma. *On its left bank*: the Bukon, Klushin Lakla, Tchun-su, Kurkaragai, Kurumsu, Yakshi-ba, and Kurkura. The Narym rivulet is noteworthy on account of the frontier-line between Russia and China occurring on its embouchure.

The following kinds of fish are found in the Zaisan:—The sturgeon (*Accipenser sturio*), the sterled (*Accipenser ruthenus*), the Nelma salmon (*Salmo Nelma*), grayling or taimen (*Salmo fluvialis*), pike, roach, perch, trout (*salmo lenoe*), carp, and burbot. The sturgeons are of two species; the first have a light greyish skin, a small head, snub snout; their length is in proportion to their breadth; the flesh is tender, rich, and of a fine flavour. The second have a dark shiny skin, firm and very coarse flesh, incapable of being softened even by long boiling; their heads are large, noses obtuse and bent upwards; their bodies are thick, and out of proportion to their general size. The sterleds of the Nor-Zaisan may be divided into three species: “Zaisanki,” a dark-greyish-skinned fish, having half as much fat as flesh; its flesh is dry and coarse, and equally uncookable as the black-skinned sturgeon; its weight is generally from 36 lbs. to 72 lbs. “Golovashki,” similar in quality to the Zaisanki, though differing from them in point of fatness; their heads are large, noses short, broad, and turned upwards; their weight varies from 6 to 20 lbs. This latter fish, together with the Zaisanki and black sturgeons, are caught in the Upper Irtysh, and but rarely met with in the Lower Irtysh. The ordinary sterled has a light-greyish skin; its flesh is soft, rich, and agreeable to the palate; its weight is from 5 lbs. to 20 lbs. The sturgeon and sterled remain during winter in Nor-Zaisan Lake and in the deep pools of the Irtysh, and descend the river to spawn in the beginning of May. They are then caught at the mouth of the Irtysh until the 13th June; but from that date to the 27th July

the quantity of fish taken in the river is considerable. From the 27th July to the 26th August spawnless fish are obtained, but the whole quantity caught within this period is small compared with the catches in April and May. From the 27th April fish also ascend the Upper Irtysh from the upper borders of Lake Zaisan; they are caught about this time in the Upper Irtysh, but the flesh of these fish is found to be hard and coarse. The weight of the *taimen* reaches 144 lbs.; the size of its head is in proportion to its general dimensions; the teeth are sharp, scales soft, colour dark green with light shades, fins and tail red; in spring it is in fat condition, and though it falls off in autumn, it is still tender and tasty. Its roe is large, but watery and tasteless. It is a very ravenous fish, preys on every other of its own species, and on anything it can secure on the surface of the stream. The uskuchi resemble the taimen in all points excepting size; they never exceed 8 lbs. in weight. Both fish pass the winter in the Zaisan. In May they ascend the Irtysh and its affluents; in September they descend again for the winter into the Zaisan.

At the fall of the Lower Irtysh into the Nor-Zaisan, and at the embouchure of the Black or Upper Irtysh, is situated the fishing-station of the Siberian Cossack troops. This fishery has been carried on by the Cossack soldiers for the benefit of their corps since the year 1803; its limits extended originally up the Irtysh, from the mouth of the Bukhturma as far as the river Narym, then to the Batavski pickets; later, however, parties came secretly as far as Nor-Zaisan for the purpose of fishing. Between 1822 and 1825 the limits of the fishing-ground were extended by General Kopsevitch to Nor-Zaisan and to the mouth of the Upper Irtysh, both for summer and winter operations. In 1842 the organisation of the fishery was changed, and it was decided to detach 86 reserve Cossacks and two officers for the purpose of carrying on the fishery. Private individuals were prohibited from catching fish, and could only purchase them through the government agents. The fishing season generally commences in the middle of May, and ends in Lake Nor-Zaisan early in September. After this period the Cossack fisherman ascends the Black Irtysh, and returns to the Krasnoyarsk Stauitsa, near the mouth of the Narym, by the end of October. The revenue derived for the benefit of the Cossack troops between the years 1842 and 1845 was 129,915 roubles (19,487*l.*). At the present time the net annual profit arising to the troops from this monopoly is 10,000 roubles (1500*l.*). Salted sterleds, nelmas, and sterled roe are despatched to different places for sale; ice-cellars and depôts being established for this purpose at Krasnoyarsk, Ust-kamenogorsk, Semipalatinsk, and Omsk.

Although the fishing-station at the fall of the Lower Irtysh into Lake Nor-Zaisan, and at the mouth of the Upper Irtysh, is within

the limits of the Chinese empire, the Celestial authorities nevertheless, adhering to their peaceful policy, do not interfere with the Russians. In the middle of June a Chinese Anban* annually repairs from Chuguchak to the Batavski picket. A tent of white felt, with a linen covering, and bordered with blue festoons, precedes by a few days the arrival of the Anban. The interior is lined with different stuffs, the floor covered with a reed-matting, and carpets are placed on the pallets. A standard, bearing the emblem of the dragon, is erected in front of the tent. The younger members of the Anban's suite follow him on horseback, while the satellites of a higher order are borne in handsome palanquins, which are escorted by *Zenge*, or under-officers, bearing small flags with the dragon's device. Seventy soldiers form the military guard of the Anban. On his arrival at Batavski picket, the Russian officer in charge of the Cossack fishing-station sends a messenger to the *Zürgan* or adjutant of the Anban, to inquire when the Anban will be ready to receive him. At the time fixed, the Russian officer, in full uniform, and accompanied by his interpreter and several Cossacks, the latter bearing the presents intended for the Anban, betakes himself to the Chinese camp. The Russian officer first visits the *galdai*, or picket-officer, who leads him to the *Zürgan*. The *Zürgan*, after examining the presents, announces his arrival to the Anban, the entrance to whose tent is lined by Chinese soldiers drawn up in two lines. The officer in charge of the Russian fishing-station, and his interpreter, are conducted by the *Zürgan* to the Anban. This personage rises and greets the Russian officer by taking his hand; he then makes inquiries about the health of the Emperor, and the chief Russian authorities, and respecting the general wellbeing of the Russian empire, and lastly, whether the Russians suffer any injury or oppression at the hands of Chinese subjects. To all these questions satisfactory answers are given by the Russian officer, in return for which the Anban expresses his gratitude, and exhorts the Russians to continue to preserve the same amicable relations in the future, inasmuch as the monarchs of both empires are in amity with each other. The Cossacks then bring in the presents destined for the Anban, who at first hesitates in accepting them, but after making an inspection, receives them with grateful satisfaction; in return, he also makes some inconsiderable presents. The overseer-officer is then regaled with tea, spirits, meat, and pastry, which being discussed, the interview terminates. The stipulated peace-offering of 500 dried sterleds for the Anban is subsequently delivered over to the *Zürgan*. The stay of the Anban at the Batavski pickets does not exceed two or three days.

* Anban, governor of the region; ke-anban, colonel; moë-anban, lieutenant-colonel; batyr-anban, major.

In the reeds around Lake Nor-Zaisan there are many wild boars, which feed on the roots of the *arundo calamagrostis*, a variety of cane, called *koga* by the Kalmyks. Otters are also numerous round about the lake, and large herds of saigas (*Antilopa saiga*) and wild horses inhabit the adjacent steppes. The immediate neighbourhood of the lake is frequented by swans, geese, ducks, cormorants, pelicans, seagulls, plovers, snipes, bustards, and pheasants. There are no forests near, and the only plants that occur consist of the saksaul (*Anabasis saksaul*), meadow-sweet, and steppe acacia. As the saksaul grows only in the Kirghiz Steppe, and is unknown in Russia, it will not be superfluous to describe it more minutely. This coniferous tree attains a growth of $2\frac{1}{2}$ fathoms in height and 6 or 7 inches in thickness. Its bark is yellow-green, its prickles soft, and salt to the taste; the wood is very solid and not pliant, being more easily broken than split. It burns even when damp, and gives out a pleasant odour. Along the course of the Rivers Kaljir, Koba, Burchun, Kran, and Ku-Irtysh, poplar, aspen, and birch trees grow plentifully, while at their sources are found the silver-fir, pine, fir, larch, and cedar along the Kran.

Amongst the earlier Russians who visited Lake Zaisan was the Boyar Theodor Baikof, Russian Envoy to China. In 1665 he started from Tobolsk, and reaching the ulus (camp) of the Kalmyk Faishi Ablai, passed the winter there. In spring he proceeded farther on his journey, and after travelling 13 days arrived at the Beska Rivulet, which falls into the Irtysh. Near this small river Ablai was then erecting two stone palaces, surrounded by a high wall: these buildings, known now by the name of Ablai's Halls, are situated at about $46\frac{2}{3}$ miles along the route to Kokbekty, on the left side of the Irtysh, in a beautiful and open valley, intersected by the small Ablaietka Rivulet. This spot Baikof left on the 12th July, and reached by the 26th July the camp of the sons of Kontaishin; from hence, after a journey of 10 days, he arrived at Lake Kyzalpu, or Nor-Zaisan, beyond which he journeyed for 17 days to the sources of the Irtysh, proceeding then to China.

In 1719 Captain Urasof and Ensign Somof received orders from the Emperor Peter to proceed on an expedition to the town of Yarkand, in Eastern Turkistan, and, with the object of examining the gold-producing regions of Central Asia, they surveyed the shores of Lake Zaisan and the banks of the Upper and Lower Irtysh, which they reached in boats built in the Yamyshevsk fortress.

In a ukase issued in 1719 to Sukharef, the Governor of Siberia, he is ordered to survey the Kalmyk lands to ascertain the number of troops in force there, and to induce the local Faishis to take the oath of allegiance to the Tsar. With this object General Likharef was despatched from Tobolsk in 1720 up the Irtysh with 34 light

flat-bottomed boats. His forces consisted of 440 soldiers, drafted from Tobolsk and the forts of Yamyshevsk and Semipalatinsk, and 30 field guns and 6 mortars. The expedition reached Lake Nor-Zaisan: Likharef, however, could not find any convenient spot on the low shores of this lake for building a fort, and proceeding accordingly to the Upper Irtysh, he ascended it for 12 days and passed beyond the parts visited by Urasof and Somof. Goldai-Cheren, son of Tsevan-Raptan, who was encamped at that time with 20,000 Kalmyks on the left bank of the Irtysh, guarding the north-eastern frontier of Djungaria against the Chinese, astonished at the sudden appearance of the Russian flotilla, resolved to anticipate the attack. The Kalmyks evinced a desire to enter into negotiation with the Russians, and requested that a "tolmatch," or interpreter, should be sent to them. Likharef, however, paid no attention to this message, and continued his journey, covering his boats as they advanced with a party of musketeers. Seeing at last the dangerous position he would be placed in should the Kalmyks attempt to cut off his retreat in the autumn, when the Irtysh becomes shallow, he entered into treaty with them and assured them that the sole object of his mission was to ascertain where the Upper Irtysh takes its rise, the possibility of its being ascended to its sources, and to search for minerals. Although Likharef's expedition proved barren of results, nevertheless, in furtherance of the views of Peter the Great, the occupation of a vast region was at the same time effected and a line of forts established, which served as bulwarks to the then rising Russian settlements in Southern Siberia. In 1737 the Siberian line was extended, under the name of the New Siberian or Ishim line, as far as the advanced posts of Orenburg. Soon after the completion of this line, the strife and bloodshed, which lasted for ten years between the successors of the Djungar ruler Goldai-Cheren, led to the establishment of Chinese rule in Djungaria, and early in 1755 two Chinese armies, supported by the troops of Amursana, one of the Djungarian disputants, appeared to carry out the division of the Oirad territory into four separate provinces, to be placed under Chinese administration. The traitor Amursana, when calling in the aid of the Chinese against his countrymen, did not anticipate such an untoward arrangement, but calculated on becoming sole ruler over the whole of Djungaria. In 1756, when the Chinese generals were congratulating themselves on the success of their expedition, Amursana, detaching himself from them in order to carry out his own ambitious projects, compelled the Bogdykhan to send out another army against him, and which accordingly took the field in 1757. Nepluyef, the Governor of Orenburg, foreseeing the speedy downfall of Djungaria, had previously, in the year 1756, projected the annexation of the country as far as Lake Nor-Zaisan. It was, however, too late, as

Djungaria had already been devastated; and the Kalmyks, who had sought refuge in Siberia, bewailed their sufferings and described the horrors perpetrated by the Manchju-Chinese detachments. In this critical condition of the boundaries, in the neighbourhood of which the Manchju-Chinese committed everything to fire and the sword, it was incumbent on Russia to place her frontier in a defensive condition. This duty was confided to Soimonof, the Governor of Siberia, with whom the military authorities were instructed to co-operate. In 1759 it was remarked that if Chinese junks sailed with hostile intentions out of Lake Nor-Zaisan, their progress could not be checked by forts and posts along the Irtysh; that the Kolyvanokuznetsk line did not defend the mines and those worked beyond in the Altaï; that it did not protect the Teleuts who nomadised in the vicinity of the Teletsk Lake; and it was, therefore, for these reasons decided to extend the line up along the Irtysh, from Ustkamenogorsk, through an easy pass, to the River Bukhtarma, and the adoption of this measure was all the more advisable, seeing that the Chinese, the new rulers of Djungaria, would have no reason to dispute our occupation on the Bukhturma, if we did not station a force and establish ourselves permanently on the shores of the Zaisan.

In 1763 General Springer was appointed Commander-in-Chief over all the Siberian lines. He was instructed, among other things, to erect a fort on the Bukhturma River, which was to prevent any Chinese vessels leaving the Lake Nor-Zaisan. In the following year Lieutenants Zelenoi and Henezer were despatched, in the month of June, with a vessel and several boats to the Nor-Zaisan. This expedition convinced the Russians that a Chinese flotilla was not dangerous to Russia from that quarter.

Having now dwelt exclusively on the Lake Nor-Zaisan and its affluents, let us complete this article with a few observations on the neighbourhood of the lake.

Twenty versts below the Kaljir Rivulet, flowing from the right into the Upper Irtysh, stands a large stone, called the *tuetash*, and which from a distance has the appearance of a camel. Near the same place and where the bank of the river is pretty high, there exudes a slight stream of petroleum (*Alumen butiraceum*), containing sulphuric acid and a considerable quantity of earthy and resinous matter.

Ten versts below the Koba Rivulet, which also falls into the Upper Irtysh from the right bank, stands a hill, occupying two-thirds of a mile in extent, and bearing the name of Achudasta Mountain. It is formed of horizontal layers of ochre, varying in colour from dark-red to red, yellow, and white. The local Kirghizes prepare achudas or alum (*Alumen nativum*) from the red ochre, and also find the alum in a crystallised state (*Alumen*

nativum cristallisatum). The Kirghizes use this mineral in colouring their wares. Saltpetre, it is said, is also found in the neighbourhood. Hillocks of varied stratification, like Achudasta hills, are very numerous, particularly in the direction of the Altaï, on the right side of the Irtysh. Hillocks of similar formation occur also in localities near the Irtysh along the Kurchumu Rivulet, and on the right side of the Zaisan.

Near the source of the Ku-Irtysh, which falls into the Upper Irtysh, there is, according to the accounts of the Kirghizes, a hill of solid stone, from which naphtha is discharged. This naphtha was at one time supplied to the Bukharians and Tashkendians; but lately the Chinese have interdicted the sale of it and placed a guard over the spot where it used to be obtained.

In the Altaï Range, opposite the upper end of the Nor-Zaisan, at the distance of about $66\frac{2}{3}$ miles from it, is the Lake Marki, which is approximately $26\frac{2}{3}$ miles in length and $16\frac{2}{3}$ miles in breadth, its shores are in many parts rocky and high.

Between the Rivers Burchun and Koba, at a distance of 10 miles from the Upper or Black Irtysh, is a small saline lake. The salt which is deposited around is used for cooking purposes by the wandering Kalmyks and Kirghizes. Between these same rivers, 20 miles from the Irtysh, stands a hill of mica, the gleam of which, in clear weather, is visible for a distance of $6\frac{2}{3}$ miles. In former years this mica was transported for sale to Semipalatinsk and other places.

Proceeding about $6\frac{2}{3}$ miles up the River Kaljir, which issues out in a series of large falls from Lake Marki and near the Karamodan Rivulet, which also flows out of this lake, stands a large fortification, surrounded by a wall of unburned bricks. At a distance of $13\frac{1}{3}$ miles from this fortification, in the scarped and rugged side of a rocky mountain, there is a cavern which, according to Khirghiz tradition, contains a treasure, consisting of precious metals and jewels of great value, deposited there by the Kalmyks after Amursana's outbreak against the Chinese, when they were obliged to seek refuge in Russian territory. This place is called "Kaima," i. e. treasure.

Between the Tarbagatai and the Saksan Mountains, near the source of the Cherga Rivulet, which discharges itself into the Nor-Zaisan, stand two forts of considerable size, at a distance of about $16\frac{2}{3}$ miles from each other. They are erected of rough stones, and show but few signs of dilapidation. In the interval between these forts a stone wall, extending for 8 versts, has been erected. This place is called Kergen-tash.

In the Altaï Range, at 20 miles from the Upper Irtysh, and situated on the Bugula Rivulet which falls into the Belezek, large

and ruinous buildings may be observed, and to which the Kirghizes give the name of Sarly-tan. I did not succeed in getting any information respecting these buildings; but it must be supposed that they were erected by the Djungars, and abandoned by them on the overthrow of their dominion in 1757.

At the southern extremity of Makrana, an offshoot of the Tarbagatai Range, there are warm mineral springs, near which stands a Buddhist temple. Within a few years ago the Chinese had recourse to these springs for curing different maladies; but now, owing to the proximity of the Russians, they no longer frequent them.

Near the source of the Arasan-Koba Rivulet in the Altai, and close to Sart-tan Mountain, are two mineral springs which issue out of a small mound. This water is cold and as white as milk; it is also held in great esteem by the Chinese. The water of one spring is drank by men, and that of the other by women.

The neighbourhood of the Zaisan and that of the rivers which fall into the Upper Irtysh abounds in wild animals of different descriptions, such as tigers, leopards, lynxes, cats, bears, wolves, foxes, Corsac foxes, wolverines, badgers, beavers, martens, squirrels, Siberian weasels, moles, ermines, and others.

The population around Nor-Zaisan is distributed as follows:—

From Chuguchak along the western shore of the lake and the left bank of the Lower Irtysh (to the fortress of Ustkamenogorsk and along the rivulets running down from the Kolbinsk and Karatal Ranges) the Kirghizes who nomadise both in summer and winter in those localities are Russian subjects, and engaged, especially those occupying the course of the Bazarka, in raising crops for their own consumption, with the assistance of irrigation. They likewise rear cattle.

From the River Narym upwards, along both sides of the Irtysh and the right shore of the Nor-Zaisan as far as the River Kaljir, are the camping-grounds of the Kirghizes, under Chinese dominion. Along the left bank of the lake upwards from the Chinese pickets, and following the course of the Upper Irtysh to Uliungur Lake in the Tarbagatai Mountains, roam both in winter and summer the Kirghizes, who were formerly ruled by the famous Sultan Haiber Shaniaz, but who are now governed by his descendants.

All the Kirghizes who occupy both sides of the Irtysh and the circumjacent parts of the Lake Nor-Zaisan, strike their tents after the 13th of June and migrate with their herds, which are much harassed by the gadflies during the hot weather, to the Altai, where they encamp at the foot of the mountains on the broad and rich pastures of the valleys until the month of September. The Chinese Gobjinsk pickets are also removed at the same time, for

during the summer months all the Kirghizes abandon the Upper Irtysh, with the exception of a few who are left to guard the cultivated patches against the depredations of boars and herons. Mongols nomadise in the neighbourhood of the sources of the Ku and Ak-Irtysh, Suptu and Suptu-Kurt Rivulets. Near the sources of the Black Irtysh, Kran and Burchuk are the camping-grounds of Kalmyks of the Urunkhais tribe. On the Tarbagatai Range, near the Saul-Tau, Kyzyl-Sdyr Mountains, and around Uliungur Lake, the country is occupied by Kalmyks of the Torgout tribe. They are all governed by Manchjur officials of different grades, such as Zaisans, Noyons, Taijis, Saloutchi, and Anbans, the highest in rank. A wooden house in the Chinese style has been built for the Anban in the steppe. This locality is resorted to in summer by many Kalmyks, mostly of the highest and richest class, with their families and cattle, and in this manner a regular town is formed round the Anban's house. The above Manchjur officials are sent in command of the pickets stationed from the River Kaljir to the town of Chuguchak, and to the similar line of pickets extending from Chuguchak past the western edge of Nor-Zaisan Lake. The object of these pickets is apparently not so much to guard the frontier as to prevent the Tartoul Kalmyks from crossing over into Russian territory. Each picket is commanded by a Manchjur officer and about twenty-five soldiers.

The road running near the Upper Irtysh, Nor-Zaisan, and along the right bank of the Lower Irtysh, is sufficiently good for horses, camels, and carts, with the exception of a few bad parts, which might easily be rendered passable. The Rivulets Kurchum, Kaljir, Koba, Burchun, and Kran, run across the road and are forded in springtime. Another road extends from the Krasnoyarsk redoubt along the left bank of the Irtysh to the Batavski pickets, where it joins the Chinese road. This latter runs past the Kulujinsk and Bukonsk pickets as far as the picket on the Bazarka Rivulet; from hence it proceeds along the left shore of the Nor-Zaisan Lake across Cherga Rivulet, past Kok-Tash Mountain to Uliungur Lake. This route is also passable for carts with moderate loads. Travellers may also proceed down the Cherga Rivulet running through a defile in the Tarbagatai Range, and which brings them to Chuguchak.
